# AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

| 1. CONTRACT ID CODE | PAGE | OF PAGES |
|---|---|---|
| | 1 | 1 |

| 2. AMENDMENT/MODIFICATION NO. | 3. EFFECTIVE DATE | 4. REQUISITION/PURCHASE REQ. NO. | 5. PROJECT NO. *(If applicable)* |
|---|---|---|---|
| 0004 | 17 AUG 98 | | |

6. ISSUED BY CODE

Department of the Army
Corps of Engineers
Fort Worth District

7. ADMINISTERED BY *(If other than Item 6)* CODE

8. NAME AND ADDRESS OF CONTRACTOR *(No., street, county, State and ZIP Code)*

CODE FACILITY CODE

(√) X

9A. AMENDMENT OF SOLICITATION NO.
DACA63-98-B-0040

9B. DATED *(SEE ITEM 11)*
27 JULY 1998

10A. MODIFICATION OF CONTRACTS/ORDER NO.

10B. DATED *(SEE ITEM 13)*

## 11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☒ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended, ☒ is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:

(a) By completing Items 8 and 15, and returning 1 copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA *(If required)*

## 13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

(√) A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: *(Specify authority)* THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.

B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES *(such as changes in paying office, appropriation date, etc.)* SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).

C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:

D. OTHER *(Specify type of modification and authority)*

**E. IMPORTANT:** Contractor ☐ is not, ☐ is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION *(Organized by UCF section headings, including solicitation/contract subject matter where feasible.)*

The Solicitation for GENERAL INSTRUCTION BUILDING, PHASE 1, FORT HOOD, TEXAS, is amended as follows:

Specifications.- The following listed accompanying new section, bearing the notation "ACCOMPANYING AMENDMENT NO. 0004 TO SOLICITATION NO. DACA63-98-B-0040," shall be added to the specifications and add to the Table of Contents:

| Section No. | Title |
|---|---|
| 02384 | Drilled Piers |

NOTE: Bid Opening Date remains "26 August 1998, 2 p.m., local time" as previously announced.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

| 15A. NAME AND TITLE OF SIGNER *(Type or print)* | | 16A. NAME AND TITLE OF CONTRACTING OFFICER *(Type or print)* | |
|---|---|---|---|
| 15B. CONTRACTOR/OFFEROR<br>*(Signature of person authorized to sign)* | 15C. DATE SIGNED | 16B. UNITED STATES OF AMERICA<br>BY<br>*(Signature of Contracting Officer)* | 16C. DATE SIGNED |

# SECTION 02384 - DRILLED PIERS

## PART 1 - GENERAL

### 1.1 REFERENCES

The publications listed below form a part of this specification to the extent specified. The publications are referred to in the text by the basic designation only.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

| | |
|---|---|
| \-ASTM A 615-\ | (1994) Deformed and Plain Billet-Steel Bars for Concrete Reinforcement. |

### 1.2 QUALIFICATIONS

The work shall be performed by a specialty Contractor, specializing in the specified foundation system and having experience installing the specified foundation system under similar subsurface conditions.

### 1.3 SUBSURFACE DATA

Subsurface data logs are shown on the drawings. The subsurface investigation report is available for examination at the Fort Worth District Office. Samples of subsurface materials may be available for examination at the Southwestern Division Laboratory, Dallas, Texas, and/or at locations within the Fort Worth District confines. Upon request, these samples will be made available. The request should reach the Fort Worth District Office at least three (3) days prior to the time of requested examination date.

### 1.4 MEASUREMENT AND PAYMENT

#### 1.4.1 Drilled Piers

Drilled foundation piers will be measured by the linear foot for depths actually drilled in strict conformance to the requirements of the specification and drawings. The length of drilled piers will be measured from the authorized bottom of the **piers** to their upper termination at the bottom of the grade beam, slab, pier cap, or any formed portion of the pier above grade, as applicable. Payment for drilled foundation piers will be made at the applicable contract unit price per linear foot according to diameter. This payment shall

constitute full compensation for all plant, labor, materials, and all costs necessary for drilling, casing, and furnishing and placing steel and concrete, complete.

## 1.5 SUBMITTALS

Government approval is required for submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01300 SUBMITTAL PROCEDURES.

SD-01 Data

Drilled Piers; FIO.

A certified copy of the survey. Lines and levels shall be established and caisson centerline locations staked and maintained by a registered surveyor or engineer provided by the Contractor.

SD-08 Statements

Qualifications; FIO.

Qualifications of the foundation system Contractor shall show that he has been engaged in the successful installation of drilled foundation caissons or piers for at least 5 years.

SD-18 Records

Drilled Piers; FIO.

Detailed records in an approved form, for each pier, showing shaft diameters, depths of test holes, top and bottom elevations, bearing strata description, casing description, water conditions, concrete strength, concrete volume, rock elevations, dates of excavation and concrete placement, and other pertinent information. Upon completion of pier work, the Contractor shall provide a record of centerline locations based on the survey of the registered surveyor or engineer provided by the Contractor. In addition, corrective measures shall be similarly recorded. A complete tabulation of all records pertaining to approved piers shall be delivered to the Contracting Officer.

## 1.6 SUPERVISION, INSPECTION, AND SAFETY

### 1.6.1 Contractor Supervision

The Contractor shall provide for the supervision of all phases of drilled pier construction. Supervision shall be the Contractor's responsibility as outlined in Quality Control provisions of Section 01440 CONTRACTOR QUALITY CONTROL. Each drilled pier excavation shall be checked by the Contractor for its depth, water removal, cleanup, workmanship, and for all tolerance requirements before any concrete is placed.

### 1.6.2 Government Inspection

The Contracting Officer reserves the right to inspect each drilled pier excavation prior to placement of reinforcing steel and concrete. The Contractor shall furnish the Contracting Officer all necessary equipment required for proper inspection of drilled pier excavations. This inspection in no way relieves the Contractor of his responsibilities as outlined in CONTRACT CLAUSE "INSPECTION OF CONSTRUCTION."

### 1.6.3 Safety Precautions for Workmen and Inspectors

The Contractor shall provide and operate all equipment required by the Contracting Officer to allow visual inspection of pier excavations by workmen or the Government, including equipment for personnel entering the excavation. Sufficient approved equipment shall be maintained to raise and lower Contractor and Government personnel into the excavation whenever required. All such equipment and all procedures used for personnel entering pier excavations shall strictly comply with all requirements of the applicable safety manuals.

#### 1.6.3.1 Life Line

Each person entering a drilled pier excavation shall be provided with a life line rigged so that the person can be immediately hoisted out of the excavation in an emergency. The life line shall be suitable for instant rescue, securely fastened to a shoulder harness, and separated from any line used to remove excavated materials. No person shall be lowered into a drilled pier excavation prior to casing the shaft through the overburden.

### 1.6.3.2 Ventilation

Each drilled pier excavation shall be provided with a ventilating device of sufficient capacity to assure a safe and healthy atmosphere before workmen and inspectors are permitted to enter the drilled pier excavation and during all work periods.

## PART 2 - PRODUCTS

## 2.1 CONCRETE WORK

Concrete work shall be in accordance with requirements of Section 03300 CONCRETE FOR BUILDING CONSTRUCTION, as modified herein:

### 2.1.1 Coarse Aggregate

Maximum size of coarse aggregate shall be 3/4-inch.

### 2.1.2 Reinforcing Steel

Reinforcing steel shall conform to ASTM A 615 Grade 60. Steel shall be tied into cages and inserted securely in the drilled pier shaft, in position and alignment, as shown, prior to concrete placement.

### 2.1.3 Strength

Concrete strength shall be 3000 psi at 28 days. Slump shall be not less than 5 inches nor more than 7 inches.

## PART 3 - EXECUTION

## 3.1 PREPARATION

a. Excavation of piers or groups of piers shall be performed so that the excavation and the placement of reinforcing steel and concrete are a continuous operation performed the same day that the excavation is started. Excavations shall not be left open overnight. **Casings shall be on site prior to starting the drilling operation.** Drilled piers shall be excavated to the depths and dimensions shown in the drawings. The bottoms of the pier excavation shall be cleaned of loose and disturbed materials or materials determined to be unsatisfactory for the required bearing

pressure. Excavated material shall be disposed of in accordance with Section 02221 EXCAVATION, FILLING, AND BACKFILLING FOR BUILDINGS AND STRUCTURES. Excavations below indicated depths, without specific direction by the Contracting Officer, shall be filled with concrete at no cost to the Government. Where, in the opinion of the Contracting Officer, materials are encountered at the indicated depths that do not provide the required bearing capacity or would result in unsatisfactory construction, the excavation shall be extended as directed by the Contracting Officer. Payment for the additional excavation and pier construction will be in accordance with PART 1 paragraph MEASUREMENT AND PAYMENT.

b. The drilling equipment shall be of suitable type and of sufficient size and capacity to satisfactorily perform the required drilling operations as specified or indicated. All equipment shall be subject to specific approval by the Contracting Officer **and shall have a minimum torque of 50,000 foot pounds and a minimum crowd of 30,000 foot ponnds**. Any equipment which fails to perform satisfactorily shall be immediately modified as approved or removed and replaced.

## 3.2 INSTALLATION

a. During construction, the pier excavation shall be adequately and securely protected against cave-ins, displacement of the surrounding earth, and inflow of ground and surface water by means of temporary steel casings as required or as directed by the Contracting Officer. Casings shall have outside diameters not less than indicated shaft sizes, and shall be capable of sustaining loads imposed by installing, sealing, maintaining the excavated hole, and extracting. **Casings shall be on site prior to starting the drilling operation.** The casing shall have a minimum wall thickness of 1/4-inch. The ends of the casing shall not be damaged such that proper seating and sealing are impaired. Damaged casing shall be immediately repaired or removed from the site. Temporary steel casings shall be withdrawn, as the concrete is being placed, maintaining sufficient head of concrete within the casing to offset water table and to prevent extraneous material from falling in from the sides or entering from beneath casing and mixing with concrete. Casings may be jerked upward a maximum of 4 inches to break the bottom seal but shall thereafter be removed with a smooth, continuous motion. All voids surrounding the casing shall be filled with concrete extruded from the bottom of the casing as it is being raised, with all free water surrounding

the casing being forced to the surface ahead of the rising concrete. Venting shall be provided if necessary to insure removal of water around the casing as the concrete level rises, and the casing is being removed. Driving of casings shall not be permitted within 20 feet of concrete placed within the preceding 3 days.

b. The inside of steel casings shall be thoroughly cleaned before being placed in a pier hole.

c. Pier holes shall be protected from inflow of ground or surface water. Water that flows into the excavations shall be continuously removed and the maximum permissible depth of water in the bottom of excavation will be 2 inches at the start of concrete placement. In the event that excessive water enters the hold, the excavation shall be deepened to undisturbed material immediately prior to concrete placement.

d. Concrete shall be placed in the pier hole within three hours after approval of the completed excavation. Concrete shall be continuously placed by methods that insure against segregation and dislodging of excavation sidewalls and shall completely fill the bell and shaft. Concrete shall be placed by pumps, tremie, or drop chutes. The discharge of pumping chute shall be kept a minimum of 3 feet below the fresh concrete surface during placement.

e. Concrete shall be vibrated for not less than the upper 5 feet of pier.

f. Protection shall be provided around the top of the excavation to prevent debris and water from entering the excavation and concrete placed therein.

## 3.3 TOLERANCES

a. Any pier out of center or plumb beyond the tolerance specified shall be corrected as necessary to comply with the tolerances and the Contractor shall bear any cost of correction. Method of correction shall be approved by the Contracting Officer.

b. Cross sections of shafts and bells shall not be less than design dimensions. Cross sections of shafts and bells shall not be greater than design dimensions plus 3 inches unless approved or directed by the Contracting Officer.

c. Location of the tops of installed piers shall not deviate from the centerline locations shown on the drawings more than 3 inches.

d. Vertical piers shall be installed plumb within a maximum of 1-1/2 inches for the first 10 feet and within 1-1/2 inches for each 10 feet of additional depth.

e. The center of the pier will be established after construction is completed and the center marked by a suitable permanent mark.

## 3.4 PROTECTION

Provide protection around top of the excavation to prevent debris from being dislodged into the excavation and concrete.

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